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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,041	06/22/2005	Jurgen Heeseman	P26812	5733

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EXAMINER

MULLER, BRYAN R

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/525,041	HEESEMAN, JURGEN	
	Examiner	Art Unit	
	Bryan R. Muller	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 6,8,10,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9,11,13 and 16 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/18/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 6, 8, 10, 14 and 15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/30/2005.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 2/18/2005 has been considered by the examiner. However, it is requested that the applicant provide a translation for foreign reference NR 226105 and translations or at least English abstract equivalents for the other foreign references not provided in English.

### ***Specification***

3. The disclosure is objected to because of the following informalities:
- a. The word "of" should be inserted after the word "inside" in line 5 of page 2.
  - b. The words "as" and "transversely" in line 13 of page 7 should be changed to "is" and "transverse", respectively.
  - c. Reference number "3" in line 21 of page 10 should be changed to "3b".
  - d. The word "that" should be inserted before the word "extend" in line 10 of page 11.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "...which extend vertically to a sanding plane between the..." is unclear. The shaft does not extend to the sanding plane. It is assumed by the examiner that the applicant intends to claim "...which extend vertically, with respect to a sanding plane, between the...". Please make appropriate corrections to clarify.

6. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear if the claim is intended to be independent or dependent on claim 1. The claim is a method claim, which does not provide any further structure to claim 1, but recites "the machine as claimed in claim 1" which leads to believe that the claim is dependent on claim 1. It is assumed by the examiner that the applicant intended for the claim to be an independent method claim, in which case, the claim should include all of the limitations of claim 1, written out in full.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3723

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 7, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Costa et al (6,299,512) in view of Herchenrider (2,162,279).

9. In reference to claim 1, Costa discloses a sanding machine having oscillation drive means (50, 56, 38A and 38B) for setting an abrasive in an oscillating sanding movement but Costa fails to disclose an activating device having a multiplicity of activating regions triggered in such a way that various regions of the abrasive are alternately activated independently of the oscillating sanding movement. Herchenrider discloses a sanding machine, similar to the Costa machine and discloses that the roller (27) that presses the abrasive against the work piece has a multiplicity of activating regions (29 or 31) and that the separate regions allow the abrasive to conform to uneven or irregular areas on the surface being ground (page 1, lines 40-44), which is advantageous to provide an evenly ground surface on a work piece. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the lower, pressure roller (24) of Costa with the roller of Herchenrider, to allow for the abrasive to conform to uneven or irregular areas on the surface being ground, as taught by Herchenrider. The regions of the roller of Herchenrider will inherently alternately activate various regions of the abrasive, and the regions are activated due to the rotation of the roller about its own axis, so the regions are activated independently of the oscillating movement.

10. In reference to claim 2, the obvious combination of Costa and Herchenrider will inherently bring the activated regions into use asynchronously relative to the oscillating sanding movement.

11. In reference to claim 3, the obvious combination of Costa and Herchenrider would further inherently disclose that the activating device can be moved transversely to a feed direction of the work piece to be sanded because the activating device is attached to the shafts causing the oscillating movement, thus the activating device will also be oscillating, which inherently provides motion transverse to the feed direction.

12. In reference to claim 4, Herchenrider further discloses that the activating regions (29 or 31) are raised lamellae on a carrier (28).

13. In reference to claim 7, Herchenrider further discloses that the activating regions extend in a form of raised lamellae on a sanding plane diagonally (fig. 4) or are offset one behind the other (figs. 3 or 4).

14. In reference to claim 13, Costa and Herchenrider further discloses that the abrasive is a sanding sheet interchangeably connected to the retaining device.

15. In reference to claim 16, the obvious combination of Costa and Herchenrider will inherently provide a method of sanding a work piece using the sanding machine of claim 1 by oscillating sanding movements, comprising alternate activation of various activating regions of the abrasive independently of the oscillating sanding movement.

16. Claims 1, 2, 4, 5, 7, 9, 11, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (2,586,848) in view of Costa et al (6,299,512).

Art Unit: 3723

17. In reference to claim 1, Miller discloses a sanding machine comprising an activating device (135) having a multiplicity of activating regions (125) triggered in such a way that various regions of the abrasive are alternately activated independently of the sanding movement but Miller is silent as to the specific drive mechanism for the abrasive and fails to disclose that the sanding machine has an oscillation drive means for setting an abrasive in an oscillating sanding movement. Costa discloses a sanding machine, similar to the Miller machine, that has an oscillation drive means (50, 56, 38A and 38B) for setting an abrasive in an oscillating sanding movement and teaches that the oscillating motion provides a homogeneous sanding pattern that renders scratches normally created by an endlessly rotating sanding belt substantially unnoticeable (lines 18-20 of the abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the abrasive belt of Miller with the oscillating drive means of Costa to render scratches normally created by an endlessly rotating sanding belt substantially unnoticeable, as taught by Costa. This obvious combination would inherently provide a sanding machine comprising an oscillation drive means for setting an abrasive in an oscillating sanding movement and an activating device having a multiplicity of activating regions triggered in such a way that various regions of the abrasive are alternately activated independently of the oscillating sanding movement.

18. In reference to claim 2, the obvious combination of Miller and Costa will inherently bring the activated regions into use asynchronously relative to the oscillating sanding movement.

Art Unit: 3723

19. In reference to claim 4, Miller further discloses that the activating regions (125) are rasied lamellae on a carrier (135).

20. In reference to claim 5, Miller further discloses that the carrier is a plate that can be moved in a sanding plane transversely to a feed direction of the work piece (W-2).

21. In reference to claim 7, Miller further discloses that the activating regions extend in a form of raised lamellae on a sanding plane diagonally and are offset one behind the other.

22. In reference to claim 9, the obvious combination of Miller and Costa further discloses that the abrasive is mounted on a retaining device (121, 122) and the retaining device is mounted with the oscillation drive means on a sanding machine frame (34 of Costa) in order to set the retaining device, relative to a sanding machine frame, in a sanding movement oscillating parallel to a sanding plane, which is defined by a sanding surface of the abrasive (B-1 of Miller), wherein the activating device is coupled to the sanding machine frame (device inherently must be coupled to the frame to provide support and to be a part of the sanding machine) and is uncoupled from the retaining device at least in one direction of the sanding plane.

23. In reference to claim 11, Costa further discloses that the oscillating drive means has rotatably driven eccentric shaft (38A, 38B), which extend vertically, with respect to a sanding plane, between the sanding machine frame (34) and the retaining device (121, 122).

24. In reference to claim 13, Miller and Costa further discloses that the abrasive is a sanding sheet interchangeably connected to the retaining device.



Art Unit: 3723

25. In reference to claim 16, the obvious combination of Miller and Costa will inherently provide a method of sanding a work piece using the sanding machine of claim 1 by oscillating sanding movements, comprising alternate activation of various activating regions of the abrasive independently of the oscillating sanding movement.

### ***Allowable Subject Matter***

26. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Grivna (5,707,273), Saunder, Jr. et al (4,742,650), Talieh et al (6,231,427) and Heesmann (NR 226105) all disclose sanding machines with at least some similar structure to the applicant's claimed sanding machine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan R. Muller whose telephone number is (571) 272-4489. The examiner can normally be reached on Monday thru Thursday and second Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail III can be reached on (571) 272-4485. The fax phone

Art Unit: 3723

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BRM *BRM*  
2/10/2006



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